

Claims

- [c1] A method for signaling in a mesh telecommunication network comprising the steps of:
- (i) receiving a request to establish a label switched path through the mesh network;
 - (ii) computing a service path and a restoration path;
 - (iii) sending a label switched path request along the restoration path requesting reservation of shared resources along the restoration path without allocating the shared resources and wherein the label switched path request includes service path information.
- [c2] The invention of claim 1 wherein the service path information comprises a list of links used along the service path.
- [c3] The invention of claim 1 wherein the service path information comprises a list of shared risk link groups traversed by the service path.
- [c4] The invention of claim 1 wherein the label switched path request is an RSVP PATH message.
- [c5] The invention of claim 4 wherein the mesh network is an optical network.
- [c6] A method for signaling in a mesh telecommunication network comprising the steps of:
- (i) receiving a request to normalize a restored connection;
 - (ii) bridging a signal onto both a service path and a restoration path to a node in the mesh network;
 - (iii) sending a first message to the node requesting that the node bridge and roll the service path and the restoration path; and
 - (iv) if a second message is received from the node confirming that the node has bridged and rolled the service path and the restoration path, halting transmissions along the restoration path and sending a third message to the node confirming that the connection is normalized.
- [c7] The invention of claim 6 wherein the messages are RSVP messages.

- [c8] The invention of claim 6 further comprising the step of verifying the service path prior to normalizing the connection.

- [c9] The invention of claim 8 wherein the service path is verified using LMP.

- [c10] A method for signaling in a mesh telecommunication network comprising the steps of:
 - (i) receiving a first message from a node in the mesh network requesting that a service path and a restoration path be bridged and rolled in order to normalize a connection;
 - (ii) bridging a signal onto both a service path and a restoration path to a node in the mesh network and rolling the signal onto the service path;
 - (iii) sending a second message to the node confirming that the service path and the restoration path have been bridged and rolled; and
 - (iv) if a third message is received from the node confirming that the connection has been normalized, halting transmissions along the restoration path and sending a fourth message along the restoration path freeing resources reserved for the restoration path.

- [c11] The invention of claim 10 wherein the messages are RSVP messages.

- [c12] The invention of claim 10 further comprising the step of verifying the service path prior to normalizing the connection.

- [c13] The invention of claim 12 wherein the service path is verified using LMP.